

Listing of the Claims

1. (Previously Amended) A method for purifying a mixture comprising single-wall carbon nanotubes and amorphous carbon contaminate, said method comprising the steps of:
 - (a) heating said mixture under oxidizing conditions sufficient to remove the said amorphous carbon; and
 - (b) recovering a product comprising at least about 80% by weight of single-wall carbon nanotubes, wherein the product is washed with a solution comprising a surfactant.
2. (Currently Amended) The method of claim 1 wherein said oxidizing conditions comprise an aqueous solution of an inorganic oxidant.
3. (Original) The method of claim 2 wherein said inorganic oxidant is selected from the group consisting of nitric acid, a mixture of sulfuric acid and hydrogen peroxide, potassium permanganate and mixtures thereof.
4. (Original) The method of claim 2 wherein said aqueous solution is heated to reflux.
5. (Original) The method of claim 2 additionally comprising the step of subjecting the oxidized product of step (b) to a saponification treatment.
6. (Original) The method of claim 5 wherein said saponification treatment comprises contacting said product with a basic solution.
7. (Original) The method of a claim 6 wherein said basic solution comprises sodium hydroxide.
8. (Original) The method of claim 6 additionally comprising the step of neutralizing the saponified product with an acid.
9. (Original) The method of claim 8 wherein said acid is hydrochloric acid.

10. (Original) The method of claim 8 additionally comprising the step of recovering a solid product from the saponified, neutralized product.
11. (Original) The method of claim 10 wherein said product is recovered by a method selected from the group consisting of filtration, settling by gravity, chemical flocculators, and liquid cycloning.
12. (Original) The method of claim 10 wherein said solid product is a paper-like two-dimensional product.
13. (Original) The method of claim 12 additionally comprising the step of drying the product.
14. (Original) The method of claim 13 wherein said product is dried at about 850°C in a hydrogen gas atmosphere.
15. (Currently Amended) The method of claim + 166 wherein said product comprises at least about 90% by weight of single-wall carbon nanotubes.
16. (Currently Amended) The method of claim + 166 wherein said product comprises at least about 95% by weight of single-wall carbon nanotubes.
17. (Currently Amended) The method of claim + 166 wherein said product comprises at least about 99% by weight of single-wall carbon nanotubes.
- 18-162. (Cancelled)
163. (Previously added) The method of claim 1 wherein the surfactant is sodium dodecyl sulfate.
164. (Previously added) The method of claim 1 wherein the surfactant is a non-ionic surfactant.

165. (Previously Added) A method for purifying a mixture comprising single-wall carbon nanotubes and amorphous carbon contaminate, said method comprising the steps of:
- (a) heating said mixture under oxidizing conditions; and
 - (b) recovering a product comprising at least about 80% by weight of single-wall carbon nanotubes, wherein the product comprises fullerene torroids.
166. (New) A method for purifying a mixture comprising single-wall carbon nanotubes and amorphous carbon contaminate, said method comprising the steps of:
- (a) heating said mixture under oxidizing conditions sufficient to remove the said amorphous carbon; and
 - (b) recovering a product comprising at least about 80% by weight of single-wall carbon nanotubes.